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Abstract

Some embodiments of the invention provide an implementation for a multi-hop wireless backhaul network. These embodiments can advantageously be deployed in dense urban areas and/or co-located with wireless access nodes, such as base-stations of a cellular wireless communication system. Preferably wireless links between constituent network nodes are set-up hierarchically. A basic result of this is that peer-to-peer (child-to-child) communication is generally prohibited and circuits are forced to conform to a topology. The multi-hop wireless backhaul network may be used to carry delay sensitive, high-density last mile circuit traffic over Non-Line-Of-Sight (NLOS) broadband radio links. Moreover, some embodiments of the invention provide a method of path-healing for re-routing of circuit traffic from circuits that have experienced catastrophic failures.